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SERIAL NUMBER	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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08/163,043 12/06/93 KALNITSKY

D1M1/0801

LISA JORGENSON
LEGAL DEPT.
SGS-THOMSON MICROELECTRONICS INC.
1310 ELECTRONICS DRIVE
CARROLLTON, TX 75006

A SGS011

EXAMINER

DANG, T

ART UNIT

PAPER NUMBER

1109

2

DATE MAILED:

08/01/94

This is a communication from the examiner in charge of your application.
COMMISSIONER OF PATENTS AND TRADEMARKS

☒ This application has been examined ☐ Responsive to communication filed on _____ ☐ This action is made final.

A shortened statutory period for response to this action is set to expire 3 month(s), _____ days from the date of this letter.
Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133

Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:

- | | |
|---|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited by Examiner, PTO-892. | 2. <input checked="" type="checkbox"/> Notice re Patent Drawing, PTO-948. |
| 3. <input type="checkbox"/> Notice of Art Cited by Applicant, PTO-1449. | 4. <input type="checkbox"/> Notice of Informal Patent Application, Form PTO-152. |
| 5. <input type="checkbox"/> Information on How to Effect Drawing Changes, PTO-1474. | 6. <input type="checkbox"/> _____ |

Part II SUMMARY OF ACTION

1. ☒ Claims 1-25 are pending in the application.

Of the above, claims 22-25 are withdrawn from consideration.

2. ☐ Claims _____ have been cancelled.
3. ☐ Claims _____ are allowed.
4. ☒ Claims 1-21 are rejected.
5. ☐ Claims _____ are objected to.
6. ☐ Claims _____ are subject to restriction or election requirement.

7. ☐ This application has been filed with informal drawings under 37 C.F.R. 1.85 which are acceptable for examination purposes.

8. ☐ Formal drawings are required in response to this Office action.

9. ☐ The corrected or substitute drawings have been received on _____. Under 37 C.F.R. 1.84 these drawings are ☐ acceptable ☐ not acceptable (see explanation or Notice re Patent Drawing, PTO-948).

10. ☐ The proposed additional or substitute sheet(s) of drawings, filed on _____ has (have) been ☐ approved by the examiner. ☐ disapproved by the examiner (see explanation).

11. ☐ The proposed drawing correction, filed on _____, has been ☐ approved. ☐ disapproved (see explanation).

12. ☐ Acknowledgment is made of the claim for priority under U.S.C. 119. The certified copy has ☐ been received ☐ not been received
☐ been filed in parent application, serial no. _____; filed on _____

13. ☐ Since this application appears to be in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11; 453 O.G. 213.

14. ☐ Other

EXAMINER'S ACTION

Election/Restriction

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

Group I. Claims 22-25, drawn to an integrated circuit structure, classified in Class 257, subclass 484.

Group II. Claims 1-21, drawn to a method of making an integrated circuit structure using etching and coating steps, classified in Class 437, subclass 228.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions Groups I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (M.P.E.P. § 806.05(f)). In the instant case the product as claimed could be made by other methods different from the claimed method. For example, selective coating and polishing could be employed instead of the etching steps as claimed.

3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, and the search required for Group

II is not required for Group I, restriction for examination purposes as indicated is proper.

4. During a telephone conversation with Ms. Lisa Jorgenson on 2/23/94 a provisional election was made with traverse to prosecute the invention of Group II, claims 1-21. Affirmation of this election must be made by applicant in responding to this Office action. Claims 22-25 are withdrawn from further consideration by the Examiner, 37 C.F.R. § 1.142(b), as being drawn to a non-elected invention.

5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 C.F.R. § 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a diligently-filed petition under 37 C.F.R. § 1.48(b) and by the fee required under 37 C.F.R. § 1.17(h).

Claim Rejections - 35 USC § 112

6. Claims 1-21 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 1, 8 and 15, the term "high points" lacks proper antecedent because it was never positively claimed that the

partially fabricated integrated circuit structure has high points. It would have been possible that the partially fabricated integrated circuit structure has a planar top surface. Also in the above claims, the words "predetermined" and "desired" are indefinite and should be canceled.

7. Claims 1-21 would be allowable if rewritten or amended to overcome the rejection under 35 U.S.C. § 112.

8. At the time when this application is in condition for allowance, claims 22-25, drawn to an invention non-elected with traverse, should be canceled.

9. The drawings are objected to because Figures 1A-1C are not designated by a legend such as "Prior Art". The legend is necessary in order to clarify what applicant's invention is. MPEP § 608.02(g). Correction is required.

10. The following is an Examiner's statement of reasons for the indication of allowable subject matter:

The prior art does not suggest or teach to apply, in sequence, a SOG layer on a partially fabricated integrated circuit structure, cure it, vacuum deposit a dielectric layer (in particular, an oxide layer) on the cured SOG, then apply and cure another SOG layer over the vacuumed deposited dielectric, as claimed for applicants' method.

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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Morimoto, Wood et al, Batty, Malazgirt et al, Yen, Matsumoto, Marks et al, Chen et al, Morozumi, Shin et al and Ouellet are cited to show other methods of planarizing in the fabrication of semiconductor devices.

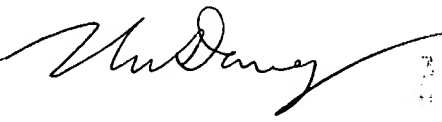
12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ms. Thi Dang whose telephone number is (703) 308-1973. The examiner can normally be reached on Mon.-Thurs. from 8:30-6:00. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Bruce Breneman, can be reached at (703) 308-3324.

The fax phone number for this Group is (703) 305-3599 (or -3600).

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0661 (or -0662).

T.D.
July 27, 1994


THI DANG
PRIMARY EXAMINER
GROUP 1100